

Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections



PROTECT OUR WATER

MĀLAMA I KA WAI

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION

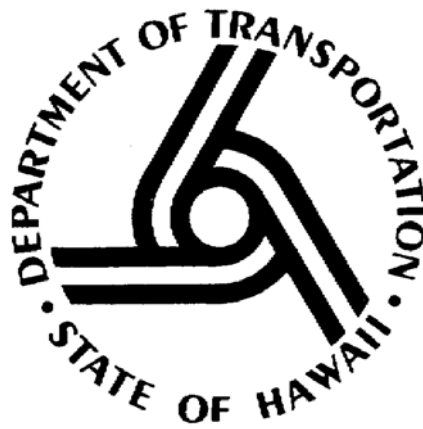
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Hawaii State Department of Transportation
Highways Division, Oahu District
Storm Water Management Program
NPDES Permit No. HI S000001
April 2015

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**State of Hawaii Department of Transportation
Highways Division, Oahu District**



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April 2015
Version: Final

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Record of Revision

Revision No.	Revision Date	Description	Sections Affected
Original Document	October 2014	Original	N/A
1	February 2015	Formatting	All
2	April 2015	Date Changed	All

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<u>Appendix</u>	<u>Title</u>
A	Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections: Tables 1 - 4.

1. PURPOSE

This *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections* was developed to fulfill the requirement found in Part D.1.g.(4) of the National Pollution Discharge Elimination System (NPDES) Municipal Separate Storm Sewer System (MS4) Permit No. HI S000001, which was issued to the State of Hawaii Department of Transportation, Highways Division, Oahu District (DOT-HWYS) on September 27, 2013, and effective on October 28, 2013.

The requirement reads as follows:

“On an annual basis, the Permittee shall modify the Plan based on updated information from its industrial and commercial inventory, finding from previous inspections, the number of industrial and commercial facilities in the area, the density of these facilities, previous storm water violations in the area, and water quality impairments in the area. The modified Plan shall set a schedule that ensures inspections will be completed in accordance with the schedule in Part.D.1.g.(5). This Plan shall be submitted with the Permittee’s annual report.”

2. BACKGROUND

The original *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections* was completed and submitted as a part of the *Storm Water Management Program Plan* in March 2007. To develop this plan, information from the industrial and commercial inventory was analyzed using the Asset Management System (AMS), and priority areas for inspection were identified. These priority areas were delineated by watershed and were listed in Table 1 of the *Prioritized Area Plan for Industrial and Commercial Facility and Activity Inspections (2007)*.

The original plan was structured so that watersheds with Waste Load Allocations (WLAs) were given the highest priority, watersheds with 303(d) stream intersections were given second highest priority, and non-WLA or non-high priority watersheds were given the lowest priority. Watersheds within each priority level were then ranked based on their site or facility densities. Those watersheds that had the highest density of sites or facilities were ranked or prioritized as first.

3. UPDATED PLAN

Using the updated information from the industrial and commercial facilities inventory, priority areas for inspection were re-evaluated and ranked according to the relative risk that any discharge may be contaminated with pollutants. Similarly to the original plan, watersheds with WLAs were given highest priority, watersheds with 303(d) stream intersections were given second highest priority, and all other watersheds were given lowest priority.

Watersheds within each priority level were first ranked based on the number of facilities within the priority area (Appendix A, Table 1). Watersheds within each priority level were then ranked based on facility densities (Number of Facilities/Watershed Acres) (Appendix A, Table 2). Watersheds within each priority level were then ranked based on the number of non-compliant cases within the priority area (Appendix A, Table 3). Finally, the watershed rankings noted in Tables 1, 2, and 3 were totaled. Priority areas were then delineated by the sum of these rankings (Appendix A, Table 4). The priority area with the lowest sum was ranked highest priority. If the sum of the tables was the same for a given priority area, the area with the highest TMDL priority was given the higher ranking. If the TMDL priority was the same, then the priority area with the most industrial and highly ranked commercial properties was given the higher ranking (Appendix A, Table 4).

4. INSPECTION SCHEDULE

Industrial facilities with NPDES coverage will be inspected once every five years. Industrial facilities without NPDES coverage will be inspected twice every five years. Highly ranked commercial facilities will be inspected once every five years. Since the majority of the facilities identified in the industrial and commercial inventory have previously been inspected, the inspection schedule is determined by the aforementioned inspection frequency. Facilities within the industrial and commercial inventory that have not been previously inspected will be scheduled for inspection in accordance to the priority areas identified in Table 4 of Appendix A. Once all industrial and highly ranked commercial facilities within a priority area have been inspected, the Industrial and Commercial team will move on to the next priority area.

**Prioritized Area Plan for Industrial and Commercial Facility and Activity
Inspections**

APPENDIX A: TABLES 1 – 4

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Table 1. Number of Facilities Per Area

Rank	Watershed	No. of Facilities	Legend
1	Ala Wai	51	WLA
2	Kaneohe	25	303(d)
3	Waimanalo	10	Other
4	Kawa	8	
5	Kapaa	0	
6	Waikele	127	
7	Nuuanu	123	
8	Waimalu	109	
9	Kapalama	69	
10	Kaukonahua	61	
11	Kalihi	59	
12	Kaupuni	42	
13	Moanalua	30	
14	Kapakahi	28	
15	Waiawa	19	
16	Halawa	17	
17	Kalauao	16	
18	Kawainui	11	
19	Kahawai	10	
20	Wailele	8	
20	Kaelepulu	8	
21	Aiea	5	
21	Kaipapau	5	
21	Honouliuli	5	
21	Manoa-Palolo	5	
22	Makiki	4	
22	Poamoho	4	
23	Ahuimanu	3	
24	Kahaluu segment	2	
24	Kawela	2	
24	Kiikii	2	
24	Kaalaea	2	
24	Waikane	2	
24	Kahawainui	2	
24	Helemano	2	
25	Kahaluu	1	
25	Punaluu	1	
25	Waianu	1	
25	Kaaawa	1	
26	Kaloi	35	
27	Mailiili	26	
28	Keehi	16	
28	Waialaenui	16	
29	Ulehawa	13	
30	Kalunawaikaala	12	
31	Manuwai	9	
32	Oio	6	
33	Kamiloiki	5	
33	Paumalu	5	
34	Makaiwa	4	
34	Koko Crater	4	
34	Makaua	4	
35	Haiamoa	3	
35	Kamilonui	3	
35	Kamailaenuu	3	
35	Malaekahana	3	
35	Waimea	3	
35	Waipuhi	3	
36	Hakipuu	2	
35	Halehaa	2	
35	Kuliouou	2	
36	Niu	1	
36	Maakua	1	
36	Pahole	1	
36	Waipio	1	
36	Makaha	1	

Table 2. Density Per Area

Rank	Watershed	Density	Legend
1	Ala Wai	0.0124	WLA
2	Kaneohe	0.0069	303(d)
3	Kawa	0.0060	Other
4	Waimanalo	0.0026	
5	Kapaa	0.0000	
6	Nuuanu	0.2402	
7	Halawa	0.0373	
8	Kapalama	0.0322	
9	Kalihi	0.0148	
10	Kapakahi	0.0127	
11	Kalauao	0.0076	
12	Kaupuni	0.0070	
13	Waialele	0.0055	
14	Waimalu	0.0055	
15	Kahaluu segment	0.0045	
16	Moanalua	0.0044	
17	Aiea	0.0038	
18	Kahawai	0.0034	
19	Kiikii	0.0034	
20	Kawainui	0.0030	
21	Kaipapau	0.0026	
22	Kaukonahua	0.0024	
23	Makiki	0.0024	
24	Kaelepulu	0.0023	
25	Ahuimanu	0.0019	
26	Kaalaea	0.0018	
27	Kawela	0.0015	
28	Waianu	0.0015	
29	Waikele	0.0015	
30	Kahaluu	0.0012	
31	Waikane	0.0012	
32	Waiawa	0.0011	
33	Manoa-Palolo	0.0008	
34	Kaaawa	0.0006	
35	Kahawainui	0.0006	
36	Honouliuli	0.0004	
37	Poamoho	0.0003	
38	Punaluu	0.0002	
39	Helemano	0.0002	
40	Halehaa	0.0124	
41	Keehi	0.0101	
42	Kalunawaikaala	0.0083	
43	Makaua	0.0077	
44	Haiamoa	0.0073	
45	Ulehawa	0.0045	
46	Waipuhi	0.0043	
47	Waialaenui	0.0042	
48	Kamiloiki	0.0033	
49	Kamaileunu	0.0024	
50	Manuwai	0.0021	
51	Kaloi	0.0021	
52	Mailiili	0.0021	
53	Kuliouou	0.0017	
54	Koko Crater	0.0017	
55	Hakipuu	0.0015	
56	Kamilonui	0.0011	
57	Maakua	0.0010	
58	Paumalu	0.0010	
59	Oio	0.0009	
60	Malaekahana	0.0007	
61	Pahole	0.0006	
62	Niu	0.0006	
63	Waipio	0.0006	
64	Makaiwa	0.0005	
65	Waimea	0.0003	
66	Makaha	0.0002	

Table 3. Violations Per Area

Rank	Watershed	Violations
1	Ala Wai	7
2	Kaneohe	2
3	Kapaa	0
3	Waimanalo	0
3	Kawa	0
4	Nuuanu	11
5	Kalihi	6
6	Waikele	5
7	Kapalama	4
8	Halawa	3
8	Kapakahi	3
8	Moanalua	3
9	Kaukonahua	2
9	Waiawa	2
9	Kalauao	2
9	Aiea	2
9	Kaalaea	2
10	Kawainui	1
10	Kaupuni	1
10	Wailele	1
10	Kaipapau	1
10	Honouliuli	1
10	Kahawai	1
10	Kahaluu	1
10	Makiki	1
10	Kahaluu segment	1
11	Waimalu	0
11	Ahuimanu	0
11	Kaelepulu	0
11	Kawela	0
11	Poamoho	0
11	Punaluu	0
11	Waianae	0
11	Kiikii	0
11	Manoa-Palolo	0
11	Waikane	0
11	Kaaawa	0
11	Kahawainui	0
11	Helemano	0
12	Kaloi	2
13	Mailili	1
13	Ulehawa	1
13	Kamilonui	1
14	Keehi	0
14	Waialaenui	0
14	Kalunawaikaala	0
14	Manuwai	0
14	Oio	0
14	Kamiloiki	0
14	Paumalu	0
14	Makaiwa	0
14	Koko Crater	0
14	Makaua	0
14	Haiamoa	0
14	Kamaileunu	0
14	Malaekahana	0
14	Waimea	0
14	Waipuhi	0
14	Hakipuu	0
14	Halehaa	0
14	Kuliouou	0
14	Niu	0
14	Maakua	0
14	Pahole	0
14	Waipio	0
14	Makaha	0

Legend

WLA
303(d)
Other

Table 4. Updated Priority Area

Rank	Watershed	Table Totals	303(d) & 305(b) TMDL Priority	No. of High Priority Commercial, No. of Industrial
1	Ala Wai	3		
2	Kaneohe	6		
3	Waimanalo	10		2
5	Kawa	10		1
6	Kapaa	13		
7	Nuuanu	19		
8	Kapalama	26		
9	Kalihi	27		
10	Halawa	32		
11	Kapakahi	33		
12	Waimalu	33		
13	Kaupuni	35		
14	Kalauao	38		
15	Moanalua	39		
16	Kaukonahua	41		
17	Waikele	42		
18	Wailele	43		
19	Aiea	47		
20	Kahawai	47		
21	Kawainui	48		
22	Kahaluu segment	50		
23	Kaipapau	51		
24	Makiki	54	L	2
25	Kaelepulu	54	L	1
26	Kiikii	54	L	0
27	Waiawa	56		
28	Ahuimanu	58		
29	Kaalaea	59		
30	Kawela	61		
31	Waianu	63		
32	Kahaluu	64	L	
33	Manoa-Palolo	64	L	
34	Waikane	65		
35	Honouliuli	66		
36	Poamoho	69	M	
37	Kahawainui	69	L	1
38	Kaaawa	69	L	0
39	Punaluu	73	L	1
40	Helemano	73	L	0
41	Keehi	82		
42	Kalunawaikaala	85		
43	Ulehawa	86		
44	Kaloi	88	x	10
45	Waialaenui	88	x	2
46	Halehaa	88		
47	Makaua	90		
48	Mailiili	91		
49	Haiamoa	92		
50	Manuwai	94	x	5
51	Kamiloiki	94	x	1
52	Waipuhi	94	x	0
53	Kamaileunu	97		
54	Koko Crater	101		
55	Kuliouou	101		
56	Kamilonui	103		
57	Oio	104	x	3
58	Paumalu	104	x	2
59	Hakipuu	104	x	1
60	Maakua	106		
61	Malaekahana	108		
62	Makaiwa	110	x	3
63	Pahole	111	x	0
64	Niu	111		
65	Waimea	112	x	2
66	Waipio	113	x	1
67	Makaha	115		

Legend
WLA
303(d)
Other